Crowdsourcing Tribal Walkability Data with the Our Voice Method

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2020 Montana Crash Data (2011-2020)

Fatal & Serious Injuries Associated Key Emphasis Areas, First 5-Years vs Recent 5-Years of Implementation

Roadway Departure & Intersection Related
Unrestrained Vehicle Occupant
Impaired Drivers
Young Driver Involved
Older Drivers Involved
Motorcyclists
Large Vehicle and Buses
Nonmotorists
Native American Fatalities Only

Data confirmed 8/30/2022

The Growing Older Staying Strong Initiative:
A community-based participatory research partnership between the University of Montana and the Confederated Salish and Kootenai Tribes Tribal Health Department to promote physical activity security among Native American older adults living on the Flathead Reservation (MT)

Physical Activity Security:

When all people...have physical and economic access to sufficient, safe and enjoyable physical activity to meet, not only their health needs, but to promote physical and emotional well-being and social connectedness, for an active and healthy life.

Graphic developed by Dr. Samantha Morigeau

Community-based participatory research (CBPR): A collection of principles to center the voices of community members for community-driven, action-focused research

- Build on strengths and resources of the community
- Address health from an ecological perspective
- Community as unit of identity
- Collaborative partnerships at all stages of research
- Promote co-learning
- Disseminate findings to all partners
- Cyclical and iterative process
- Integrate knowledge and action for mutual benefit of all partners

Israel et al., 1998. *Annual Review of Public Health*
Factors that impact walking among Native American older adults living on the Flathead Reservation

Pedersen et al., 2021. *Translational Behavioral Medicine*
Current project objectives:

We will use the **Our Voice method** to

(1) Crowdsource information on pedestrian safety & walkability from the perspectives of Native American older adults living on the Flathead Reservation, *and*

(2) Develop community-driven solutions to improve pedestrian safety for CSKT older adults and community members
The *Our Voice* method: Citizen Science for Health Equity

Faculty Director:
Dr. Abby King

A mobile health tool and community-engaged process for data-driven action
The *Our Voice* method four-step process:

**STEP 1:** DISCOVER

**STEP 2:** DISCUSS

**STEP 3:** ACTIVATE

**STEP 4+:** CHANGE

What makes it easy or hard to walk around in your community?

What helps you to feel safe while walking in your community?

What makes it easy or hard to walk with your family to
Wi-Fi or service needed only for data upload
The Our Voice Method: Citizen science for health equity

The Output

• **Crowdsourced** multi-method data
  • Geotagged photos
  • Narratives
  • Rankings
  • Tags

• Community-prioritized issues/solutions

• **Community engagement** for collective action toward improvement
Community Research Partner Acknowledgements:

- **Confederated Salish and Kootenai Tribes**
  - **Tribal Health Department**
    - Samantha Morigeau, DPT
    - Chelsea Kleinmeyer, RN, MSN
    - Jason Krumbeck, DPT
    - Amber Landowski, BS
    - Paul Phillips
    - Lynn Henricksen
  - **Research Review Board**
    - Mattea Grant, MPH

- **Salish Kootenai College Institutional Review Board**

- **Growing Older Staying Strong Community Advisory Board**

- **Tribal Community Research Liaison: Niki Graham, MPH**
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More information:

Our Voice at Stanford University
https://med.stanford.edu/ourvoice.html

Growing Older Staying Strong at CSKT Tribal Health
https://www.cskthealth.org(programs/growing-older-staying-strong/)